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# Hydrogen bonding in Alzheimer's amyloid-β fibrils probed by 15N{17O} REAPDOR solid-state NMR spectroscopy

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## Abstract

An exclusive label: 15N{17O} REAPDOR NMR was used to validate intermolecular C17O=H-15N hydrogen bonding in Ac-Aβ(16-22)-NH2 (see scheme) and Aβ(11-25) amyloid fibrils, which are associated with Alzheimer's disease, by selectively labeling them with 17O and 15N. This method was effective for confirming the structure of these fibrils, and could be useful for a number of other biological samples. Copyright © 2012 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

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## Keywords

15N{17O} REAPDOR NMR, amyloid-β fibrils, hydrogen bonds, NMR spectroscopy, solid-state NMR